

# 15 RECEIVED

## SEQUENCE LISTING

DEC 2 0 2002

(1) GENERAL INFORMATION:

TECH CENTER 1600/2900

- (i) APPLICANT: SOMMERVILLE, CHRIS SCHIEBLE, WOLF
- (ii) TITLE OF INVENTION: MODIFIED CELLULOSE SYNTHASE GENE FROM ARABIDOPSIS THALIANA CONFERS HERBICIDE RESISTANCE TO PLANTS
- (iii) NUMBER OF SEQUENCES: 2
- (iv) CORRESPONDENCE ADDRESS:
  - (A) ADDRESSEE: PAUL A. GOTTLIEB, AGCTT
    DEPARTMENT OF ENERGY
    GC-62 (FORSTL) MS-6F-067
  - (B) STREET: 1000 INDEPENDENCE AVE. S.W.
  - (C) CITY: WASHINGTON, D.C.
  - (D) ZIP: 20585
- (v) COMPUTER READABLE FORM:
  - (A) MEDIUM TYPE: FLOPPY DISK
  - (B) COMPUTER: IBM PC COMPATIBLE
  - (C) OPERATING SYSTEM: MS-DOS
  - (D) SOFTWARE: WORDPERFECT 10
- (vi) CURRENT APPLICATION DATA:
  - (A) APPLICATION NUMBER: 09/686,234
  - (B) FILING DATE: 10/11/2000
- (viii) ATTORNEY/AGENT INFORMATION:
  - (A) NAME: SMITH, BRADLEY
  - (B) REGISTRATION NUMBER: 334436
  - (C) REFERENCE/DOCKET NUMBER: S-93994
- (ix) TELECOMMUNICATION INFORMATION
  - (A) TELEPHONE: 630-252-2160
  - (B) TELEFAX: 630-252-2779
- (2) INFORMATION FOR SEQ ID NO:3:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 19 NUCLEOTIDES
    - (B) TYPE: NUCLEIC ACID
    - (C) ORGANISM: ARTIFICIAL SEQUENCE
    - (D) TOPOLOGY: LINEAR
  - (ii) MOLECULAR TYPE: cDNA
  - (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE PRIMER
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

cgaacttgag acctcttga

0019

(2) INFORMATION FOR SEQ ID NO:4: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 19 NUCLEOTIDES (B) TYPE: NUCLEIC ACID (C) ORGANISM: ARTIFICIAL SEQUENCE (D) TOPOLOGY: LINEAR (ii) MOLECULAR TYPE: cDNA (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE PRIMER (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: catgatccat cgtcttagt 0019 (2) INFORMATION FOR SEQ ID NO:5: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 18 NUCLEOTIDES (B) TYPE: NUCLEIC ACID (C) ORGANISM: ARTIFICIAL SEQUENCE (D) TOPOLOGY: LINEAR (ii) MOLECULAR TYPE: cDNA (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5: aatatcgctt gtttttgc 0018 (2) INFORMATION FOR SEQ ID NO:6: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 19 NUCLEOTIDES (B) TYPE: NUCLEIC ACID (C) ORGANISM: ARTIFICIAL SEQUENCE (D) TOPOLOGY: LINEAR (ii) MOLECULAR TYPE: cDNA (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6: 0019 tccaaagcta aatcgctat (2) INFORMATION FOR SEQ ID NO:7: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 19 NUCLEOTIDES (B) TYPE: NUCLEIC ACID

- (C) ORGANISM: ARTIFICIAL SEQUENCE (D) TOPOLOGY: LINEAR (ii) MOLECULAR TYPE: cDNA (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE PRIMER (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7: ctccgtctat tcaagatgc 0019 (2) INFORMATION FOR SEQ ID NO:8: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 19 NUCLEOTIDES (B) TYPE: NUCLEIC ACID (C) ORGANISM: ARTIFICIAL SEQUENCE (D) TOPOLOGY: LINEAR (ii) MOLECULAR TYPE: cDNA (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8: 0019 acctgaacca tcctccgtc (2) INFORMATION FOR SEQ ID NO:9: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 19 NUCLEOTIDES (B) TYPE: NUCLEIC ACID (C) ORGANISM: ARTIFICIAL SEQUENCE (D) TOPOLOGY: LINEAR (ii) MOLECULAR TYPE: cDNA (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE PRIMER (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9: 0019 tcattttggc cgacttagc (2) INFORMATION FOR SEQ ID NO:10:

(i) SEQUENCE CHARACTERISTICS:

(D) TOPOLOGY: LINEAR

(A) LENGTH: 22 NUCLEOTIDES (B) TYPE: NUCLEIC ACID

(C) ORGANISM: ARTIFICIAL SEQUENCE

(ii) MOLECULAR TYPE: cDNA

(iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE PRIMER (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10: 0022 tctccccact agttttgtgt cc (2) INFORMATION FOR SEQ ID NO:11: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 21 NUCLEOTIDES (B) TYPE: NUCLEIC ACID (C) ORGANISM: ARTIFICIAL SEQUENCE (D) TOPOLOGY: LINEAR (ii) MOLECULAR TYPE: cDNA (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE PRIMER (xi) SEQUENCE DESCRIPTION: SEQ ID NO:11: 0021 gaaatccaaa tcccagagag g (2) INFORMATION FOR SEQ ID NO:12: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 18 NUCLEOTIDES (B) TYPE: NUCLEIC ACID (C) ORGANISM: ARTIFICIAL SEQUENCE (D) TOPOLOGY: LINEAR (ii) MOLECULAR TYPE: cDNA (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE PRIMER (xi) SEQUENCE DESCRIPTION: SEQ ID NO:12: 0018 gatttcccca gacgattt (2) INFORMATION FOR SEQ ID NO:13: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 20 NUCLEOTIDES (B) TYPE: NUCLEIC ACID (C) ORGANISM: ARTIFICIAL SEQUENCE (D) TOPOLOGY: LINEAR (ii) MOLECULAR TYPE: cDNA (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE PRIMER (xi) SEQUENCE DESCRIPTION: SEQ ID NO:13: 0020 agtttatttg ttgcggtttt

(2) INFORMATION FOR SEQ ID NO:14: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 24 NUCLEOTIDES (B) TYPE: NUCLEIC ACID (C) ORGANISM: ARTIFICIAL SEQUENCE (D) TOPOLOGY: LINEAR (ii) MOLECULAR TYPE: cDNA (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE (xi) SEQUENCE DESCRIPTION: SEQ ID NO:14: 0024 cagttaatga aacaagcttt gttc ... (2) INFORMATION FOR SEQ ID NO:15: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 21 NUCLEOTIDES (B) TYPE: NUCLEIC ACID (C) ORGANISM: ARTIFICIAL SEQUENCE (D) TOPOLOGY: LINEAR (ii) MOLECULAR TYPE: cDNA (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15: 0021 gttgagaaaa tcactttggt g (2) INFORMATION FOR SEQ ID NO:16: (i) SEOUENCE CHARACTERISTICS: (A) LENGTH: 17 NUCLEOTIDES (B) TYPE: NUCLEIC ACID (C) ORGANISM: ARTIFICIAL SEQUENCE (D) TOPOLOGY: LINEAR (ii) MOLECULAR TYPE: cDNA (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE (xi) SEQUENCE DESCRIPTION: SEQ ID NO:16: 0017 tggttagatt tgctgtt (2) INFORMATION FOR SEQ ID NO:17: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 20 NUCLEOTIDES (B) TYPE: NUCLEIC ACID (C) ORGANISM: ARTIFICIAL SEQUENCE (D) TOPOLOGY: LINEAR

(ii) MOLECULAR TYPE: cDNA (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE PRIMER (xi) SEQUENCE DESCRIPTION: SEQ ID NO:17: attctgcatt attagttgtc 0020 (2) INFORMATION FOR SEQ ID NO:18: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 19 NUCLEOTIDES (B) TYPE: NUCLEIC ACID (C) ORGANISM: ARTIFICIAL SEQUENCE (D) TOPOLOGY: LINEAR (ii) MOLECULAR TYPE: cDNA (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE PRIMER (xi) SEQUENCE DESCRIPTION: SEQ ID NO:18: 0019 ttagccatcc caagattct (2) INFORMATION FOR SEQ ID NO:19: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 19 NUCLEOTIDES (B) TYPE: NUCLEIC ACID (C) ORGANISM: ARTIFICIAL SEQUENCE (D) TOPOLOGY: LINEAR (ii) MOLECULAR TYPE: cDNA (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE PRIMER (xi) SEQUENCE DESCRIPTION: SEQ ID NO:19: 0019 cttcaagggg tcaacagta (2) INFORMATION FOR SEQ ID NO:20: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 19 NUCLEOTIDES (B) TYPE: NUCLEIC ACID (C) ORGANISM: ARTIFICIAL SEQUENCE (D) TOPOLOGY: LINEAR (ii) MOLECULAR TYPE: cDNA (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE PRIMER

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:

taccgagcgt ttttcctat 0019

- (2) INFORMATION FOR SEQ ID NO:21:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 19 NUCLEOTIDES
      - (B) TYPE: NUCLEIC ACID
    - (C) ORGANISM: ARTIFICIAL SEQUENCE
    - (D) TOPOLOGY: LINEAR
  - (ii) MOLECULAR TYPE: cDNA
  - (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE PRIMER
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:

ccagcaccta agtttcaca

0019

- (2) INFORMATION FOR SEQ ID NO:22:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 20 NUCLEOTIDES
    - (B) TYPE: NUCLEIC ACID
    - (C) ORGANISM: ARTIFICIAL SEQUENCE
    - (D) TOPOLOGY: LINEAR
  - (ii) MOLECULAR TYPE: cDNA
  - (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE PRIMER
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:

gttcagttcc cacaaagatt

0020

- (2) INFORMATION FOR SEO ID NO:23:
  - (i) SEOUENCE CHARACTERISTICS:
    - (A) LENGTH: 18 NUCLEOTIDES
    - (B) TYPE: NUCLEIC ACID
    - (C) ORGANISM: ARTIFICIAL SEQUENCE
    - (D) TOPOLOGY: LINEAR
    - (ii) MOLECULAR TYPE: cDNA
    - (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE PRIMER
    - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23:

tcattccgac caaaagtt

0018

- (2) INFORMATION FOR SEQ ID NO:24:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 59 NUCLEOTIDES
    - (B) TYPE: NUCLEIC ACID

- (C) ORGANISM: ARTIFICIAL SEQUENCE
- (D) TOPOLOGY: LINEAR
- (ii) MOLECULAR TYPE: cDNA
- (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE PRIMER
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:

ggactcgcgc gcctgcaggt cgacactagt ggatccaaag aattcgcggc cgcgtcgac 0059

- (2) INFORMATION FOR SEQ ID NO:25:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 28 NUCLEOTIDES
    - (B) TYPE: NUCLEIC ACID
    - (C) ORGANISM: ARTIFICIAL SEQUENCE
    - (D) TOPOLOGY: LINEAR
  - (ii) MOLECULAR TYPE: cDNA
  - (iii) OTHER INFORMATION: DESCRIPTION OF ARTIFICIAL SEQUENCE PRIMER

A) Cont

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:25:

tacggctgcg agaagacgac agaagggg

0028